

The Big Picture

- Chapter 13: The **cost** of production
- Chapter 14-17: Look at firm's **revenue**
 - But revenue depends on market structure
- 1. **Competitive market** (chapter 14)
- 2. **Monopoly** (chapter 15)
- 3. **Oligopoly** (chapter 16)
- 4. **Monopolistic Composition** (chapter 17)
 - Are there other types of markets? Yes, not now

14 Firms in Competitive Markets

PRINCIPLES OF ECONOMICS FOURTH EDITION

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2008 update
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CHAPTER 14 SUMMARY

- For a firm in a perfectly competitive market, price = marginal revenue = average revenue.
- If $P > AVC$, a firm maximizes profit by producing the quantity where $MR = MC$. If $P < AVC$, a firm will shut down in the short run.
- If $P < ATC$, a firm will exit in the long run.
- In the short run, entry is not possible, and an increase in demand increases firms' profits.
- With free entry and exit, profits = 0 in the long run, and $P =$ minimum ATC .

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Perfect Competition

- Products are **Perfect Substitutes**
- Result: **Price Taking**
- $P = MR = MC$
- **SR**: Will operate if $P > AVC$ (FC is sunk)
- **LR**: Will operate at $P = ATC$
 - Firms enter if $P > ATC$; exit if $P < ATC$
- Homework: Mankiw, Ch.14, pp. 308-309, Problem 3, 5, 9, 11, 12.

15 Monopoly

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CHAPTER 15 SUMMARY

- A monopoly firm is the sole seller in its market. Monopolies arise due to barriers to entry, including: government-granted monopolies, the control of a key resource, or economies of scale over the entire range of output.
- A monopoly firm faces a downward-sloping demand curve for its product. As a result, it must reduce price to sell a larger quantity, which causes marginal revenue to fall below price.

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CHAPTER 15 SUMMARY

- Monopoly firms maximize profits by producing the quantity where marginal revenue equals marginal cost. But since marginal revenue is less than price, the monopoly price will be greater than marginal cost, leading to a deadweight loss.
- Policymakers may respond by regulating monopolies, using antitrust laws to promote competition, or by taking over the monopoly and running it. Due to problems with each of these options, the best option may be to take no action,
- Or, just auction off the market. (Demsetz, 1968)

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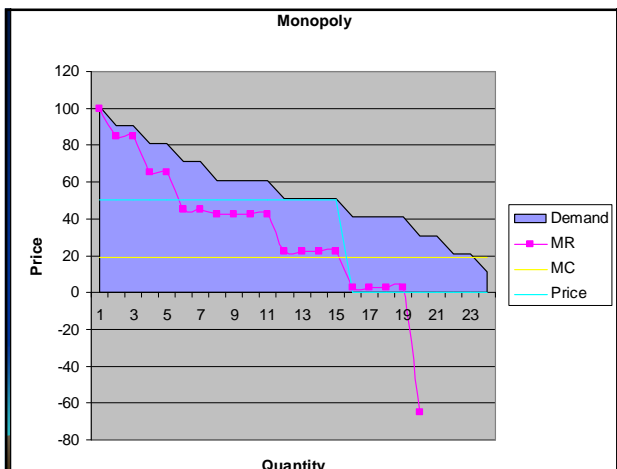
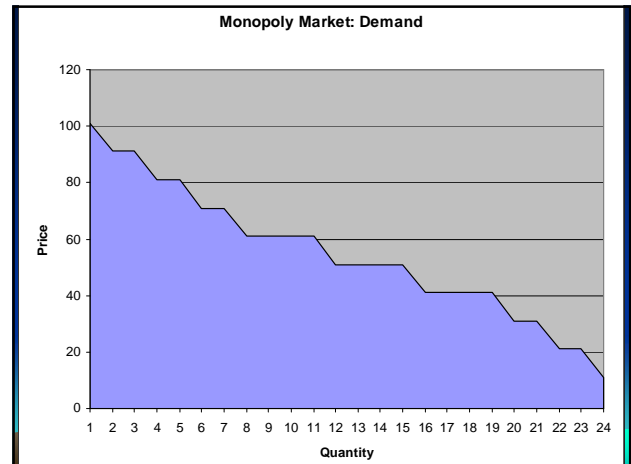
CHAPTER 15 SUMMARY

- Monopoly firms (and others with market power) try to raise their profits by charging higher prices to consumers with higher willingness to pay. This practice is called price discrimination.

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Monopoly

- MR=MC to maximize profit (still true!)
- But, $P < MR$ (D - downward sloping)
- Welfare Cost of a Monopoly:
 - Profits (unfair??) vs. DWL (efficiency loss!!)
- Cures? Do nothing? Auction off the market
- Homework: Mankiw, Ch. 15,
 - Graph and Words: Problem 2, 3, 7, 8, 14
 - Numerical: Problem 6, 8, 13



16 Oligopoly

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CHAPTER 16 SUMMARY

- Oligopolists can maximize profits if they form a cartel and act like a monopolist.
- Yet, self-interest leads each oligopolist to a higher quantity and lower price than under the monopoly outcome.
- The larger the number of firms, the closer will be the quantity and price to the levels that would prevail under competition.

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CHAPTER 16 SUMMARY

- The prisoners' dilemma shows that self-interest can prevent people from cooperating, even when cooperation is in their mutual interest. The logic of the prisoners' dilemma applies in many situations.
- Policymakers use the antitrust laws to prevent oligopolies from engaging in anticompetitive behavior such as price-fixing. But the application of these laws is sometimes controversial.

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Oligopoly

- When there are only a few firms
- Firms care about each other's actions
 - Game Theory; Nash Equilibrium; P.D.
- Collusion (Monopoly) vs. Self-Interest
- Policy: Increase competition; antitrust
- Homework: Mankiw, Ch. 16, pp.368-371
Problem 3, 4, 6, 9, 10, 11

17 Monopolistic Competition

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In this chapter, look for the answers to these questions:

- How is monopolistic competition similar to perfect competition? How is it similar to monopoly?
- How do monopolistically competitive firms choose price and quantity? Do they earn economic profit?
- In what ways does monopolistic competition affect society's welfare?
- What are the social costs and benefits of advertising?

CHAPTER 17 MONOPOLISTIC COMPETITION

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Introduction to Monopolistic Competition

- **Monopolistic competition:**
a market structure in which many firms sell products that are similar but not identical.
- Recall:
 - Perfect competition = perfect substitutes
 - Monopoly = no close substitutes
- **Monopolistic competition = Partial Substitutes!**

CHAPTER 17 MONOPOLISTIC COMPETITION

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Introduction to Monopolistic Competition

Differentiated Products:

- Location, location, location! (產品定位)
- Examples:
 - apartments
 - books
 - bottled water
 - clothing
 - fast food
 - night clubs

Comparing Perfect & Monop. Competition

	perfect competition	monopolistic competition
number of sellers	many	many
free entry/exit	yes	yes
long-run econ. profits	zero	zero
the products firms sell	identical	differentiated
firm has market power?	none, price-taker	yes
D curve facing firm	horizontal	downward-sloping

Comparing Monopoly & Monop. Competition

	monopoly	monopolistic competition
number of sellers	one	many
free entry/exit	no	yes
long-run econ. profits	positive	zero
firm has market power?	yes	yes
D curve facing firm	downward-sloping (market demand)	downward-sloping
close substitutes	none	many

Comparing Oligopoly & Monop. Competition

	oligopoly	monopolistic competition
number of sellers	few	many
importance of strategic interactions between firms	high	low
likelihood of fierce competition	low?!	high

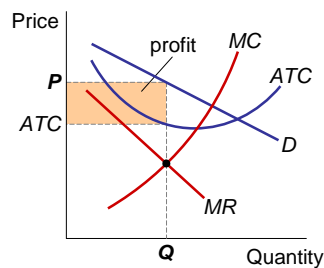
A Monopolistically Competitive Firm Earning Profits in the Short Run

The firm faces a downward-sloping D curve.

At each Q, $MR < P$.

To maximize profit, firm produces Q where $MR = MC$.

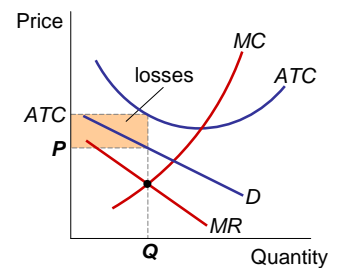
The firm uses the D curve to set P.



A Monopolistically Competitive Firm With Losses in the Short Run

For this firm, $P < ATC$ at the output where $MR = MC$.

The best this firm can do is to minimize its losses.



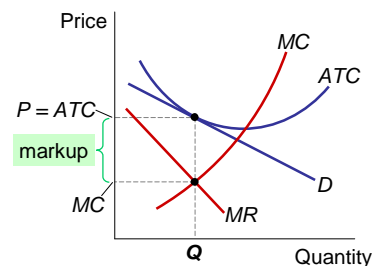
Monopolistic Competition and Monopoly

- **Short run:** Under monopolistic competition, firm behavior is very similar to monopoly.
- **Long run:** In monopolistic competition, entry and exit drive economic profit to zero.
 - If profits in the short run: New firms enter market, taking some demand away from existing firms, prices and profits fall.
 - If losses in the short run: Some firms exit the market, remaining firms enjoy higher demand and prices.

A Monopolistic Competitor in the Long Run

Entry and exit occurs until $P = ATC$ and profit = zero.

Notice that the firm charges a markup of price over marginal cost, and does not produce at minimum ATC .



Why Monopolistic Competition Is Less Efficient than Perfect Competition

1. Excess capacity

- The monopolistic competitor operates on the downward-sloping part of its ATC curve, produces less than the cost-minimizing output.
- Under perfect competition, firms produce the quantity that minimizes ATC .

2. Markup over marginal cost

- Under monopolistic competition, $P > MC$.
- Under perfect competition, $P = MC$.

Monopolistic Competition and Welfare

- Monopolistically competitive markets do not have all the desirable welfare properties of perfectly competitive markets.
- Because $P > MC$, the market quantity is below the socially efficient quantity.
- Yet, not easy for policymakers to fix this problem: Firms earn zero profits, so cannot require them to reduce prices.
- (Is this the “best” we can do? Maybe!)

Monopolistic Competition and Welfare

- Number of firms in the market may not be optimal, due to external effects from the entry of new firms:
 - **the product-variety externality:** surplus consumers get from the introduction of new products
 - **the business-stealing externality:** losses incurred by existing firms when new firms enter market
- The inefficiencies of monopolistic competition are subtle and hard to measure. No easy way for policymakers to improve the market outcome.

Advertising

- In monopolistically competitive industries, product differentiation and markup pricing lead naturally to the use of advertising.
- In general, the more differentiated the products, the more advertising firms buy.
- Economists disagree about the social value of advertising.

The Critique of Advertising

- Critics of advertising believe:
 - Society is wasting the resources it devotes to advertising.
 - Firms advertise to manipulate people's tastes.
 - Advertising impedes competition – it creates the perception that products are more differentiated than they really are, allowing higher markups.

The Defense of Advertising

- Defenders of advertising believe:
 - It provides useful information to buyers.
 - Informed buyers can more easily find and exploit price differences.
 - Thus, advertising promotes competition and reduces market power.
- Results of a prominent study:
Eyeglasses were more expensive in states that prohibited advertising by eyeglass makers than in states that did not restrict such advertising.

Advertising as a Signal of Quality

A firm's willingness to spend huge amounts on advertising may signal the quality of its product to consumers, *regardless of the content of ads*.

- Ads may convince buyers to try a product once, but the product must be of high quality for people to become repeat buyers.
- The most expensive ads are not worthwhile unless they lead to repeat buyers.
- When consumers see expensive ads, they think the product must be good if the company is willing to spend so much on advertising.

Brand Names

- In many markets, brand name products coexist with generic ones.
- Firms with brand names usually spend more on advertising, charge higher prices for the products.
- As with advertising, there is disagreement about the economics of brand names...

The Critique of Brand Names

- Critics of brand names believe:
 - Brand names cause consumers to perceive differences that do not really exist.
 - Consumers' willingness to pay more for brand names is irrational, fostered by advertising.
 - Eliminating govt protection of trademarks would reduce influence of brand names, result in lower prices.

The Defense of Brand Names

- Defenders of brand names believe:
 - Brand names provide information about quality to consumers.
 - Companies with brand names have incentive to maintain quality, to protect the reputation of their brand names.

CONCLUSION

- Differentiated products are everywhere; examples of monopolistic competition abound.
- The theory of monopolistic competition describes many markets in the economy, yet offers little guidance to policymakers looking to improve the market's allocation of resources.

CHAPTER SUMMARY

- A monopolistically competitive market has many firms, differentiated products, and free entry.
- Each firm in a monopolistically competitive market has excess capacity – produces less than the quantity that minimizes ATC . Each firm charges a price above marginal cost.

CHAPTER SUMMARY

- Monopolistic competition does not have all of the desirable welfare properties of perfect competition. There is a deadweight loss caused by the markup of price over marginal cost. Also, the number of firms (and thus varieties) can be too large or too small. There is no clear way for policymakers to improve the market outcome.

CHAPTER SUMMARY

- Product differentiation and markup pricing lead to the use of advertising and brand names. Critics of advertising and brand names argue that firms use them to reduce competition and take advantage of consumer irrationality. Defenders argue that firms use them to inform consumers and to compete more vigorously on price and product quality.

Monopolistic Competition

- Most close to reality
- Differentiated Products:
 - Location, location, location!
- SR: Like a monopoly (locally)
- LR: Zero profits
- Homework: Mankiw, Ch.17, pp. 388-389, Problem 5, 6, 7, 8, 9